

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Appl. No.: 10/606,859
Attorney Docket No.: Q76311

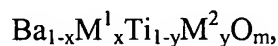
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-18 (cancelled).

19. (new): A memory device, comprising a dielectric film comprising a quaternary metal oxide having a formula of:



wherein

M^1 is a metal selected from the group consisting of the elements of Group IA and IIA of the periodic table, lanthanide series, Zn, Bi, and Sn;

M^2 is a metal selected from the group consisting of Ta, Zr, Ce, Nb, Co, and Hf;

$0 < x, y < 1$; and

m satisfies the principle of electrical neutrality for the metal oxide,

wherein the dielectric constant of the dielectric film is more than 320 and the dielectric loss is less than 0.01 at 2.5 GHz.

20. (new): The memory device as claimed in claim 19, wherein M^1 is Mg, La, or Sr.

21. (new): The memory device as claimed in claim 20, wherein M^1 is Sr or La.

22. (new): The memory device as claimed in claim 19, wherein M^2 is Ta, Zr, or Hf.

23. (new): The memory device as claimed in claim 22, wherein M^2 is Ta.

24. (new): The memory device as claimed in claim 22, wherein M^2 is Zr.

25. (new): The memory device as claimed in claim 22, wherein M^2 is Hf.

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26. (new): The memory device as claimed in claim 19, wherein $0 < x \leq 0.5$.
27. (new): The memory device as claimed in claim 19, wherein $0 < y \leq 0.5$.
28. (new): The memory device as claimed in claim 19, wherein the metal oxide is $(\text{Ba}_{1-x}\text{Sr}_x)(\text{Ti}_{1-y}\text{Ta}_y)\text{O}_3$, $0.3 \leq x \leq 0.5$, and $0 < y \leq 0.3$.
29. (new): The memory device as claimed in claim 19, wherein the metal oxide is $(\text{Ba}_{1-x}\text{La}_x)(\text{Ti}_{1-y}\text{Hf}_y)\text{O}_3$, $0 < x \leq 0.5$, and $0 < y \leq 0.5$.
30. (new): The memory device as claimed in claim 19, wherein the metal oxide is $(\text{Ba}_{1-x}\text{La}_x)(\text{Ti}_{1-y}\text{Zr}_y)\text{O}_3$, $0 < x \leq 0.5$, and $0 < y \leq 0.5$.
31. (new): The memory device as claimed in claim 19, wherein the dielectric film with high dielectric constant and low dielectric loss is manufactured from a method of solid state reaction.
32. (new): The memory device as claimed in claim 19, wherein the dielectric film with high dielectric constant and low dielectric loss is manufactured from a method of liquid phase reaction.
33. (new): The memory device as claimed in claim 19, wherein the dielectric constant of the dielectric film is more than 950 and the dielectric loss is less than 0.001 at 2.5 GHz.
34. (new): The memory device as claimed in claim 19, which is a Gbit memory device.